

AMENDMENTS TO THE CLAIMS

1. *(Currently amended)* An rapid hybridization apparatus ~~for rapid hybridization~~, comprising:
 - (a) a chamber having a buffer, a first molecule, and a second molecule;
 - (b) two electrodes, spaced on either side of said chamber, and in direct contact with said buffer, wherein said electrodes have holes or provide a gap to vent generated gases; and
 - (c) a cyclical electric field generator to establish a cyclical electric field between said two electrodes to electrically move said first molecule across said buffer in a cyclical pattern to bind said first molecule with said second molecule.
2. *(Original)* The apparatus of claim 1, wherein said first molecule is a mobile molecule.
3. *(Original)* The apparatus of claim 1, wherein said second molecule is a mobile molecule or an immobile molecule.
4. *(Original)* The apparatus of claim 1, wherein said second molecule is part of a microarray.
5. *(Original)* The apparatus of claim 1, wherein said first molecule or said second molecule is a nucleic acid, a protein, a polymer, a peptide, an antibody, an antigen, or a tissue.

6. *(Cancelled)*
7. *(Original)* The apparatus of claim 1, wherein said chamber further comprises a lid.
8. *(Original)* The apparatus of claim 1, wherein said cyclical electric field generator generates a cyclical voltage selected from a range of 1-680 Volts.
9. *(Original)* The apparatus of claim 1, wherein said cyclical electric field generator generates a cyclical electric field selected from a range of 0.17- 113 Volts/cm.
10. *(Original)* The apparatus of claim 1, wherein said cyclical electric field generator generates a cyclical frequency selected from a range of 0.06-940 Hertz.
11. *(Original)* The apparatus of claim 1, wherein said cyclical electric field generator comprises of an adjustable frequency oscillator, an adjustable voltage power supply, a fixed voltage power supply, a high voltage amplifier, a solid state relay an optoisolator, an optocoupler, or a photocoupler.
12. *(Original)* The apparatus of claim 1, further comprising a temperature controlling means for controlling the temperature of said buffer.
13. *(Original)* The apparatus of claim 1, wherein said cyclical pattern is a square, a triangular, a sinusoidal or a step pattern.
- 14-31. *(Cancelled)*